quality to he the occupation of space. The later disclosures of physics clearly prove that matter has a *lumpis*. And yet the dynamical theory of matter is equally defective, inasmuch as it commonly omits the occupation of space, which is an equally essential attribute of matter, and inasmuch as it confines the activity of matter to force, whereas it seems to possess active properties of various kinds.

In the midst of all the changes of material objects, there are two things tlmt abide—the substances abide, and the qualities abide. Allotropism may seem an exception. It is ascertained that two bodies possessing the same chemical composition may exhibit very different properties. Thus common phosphorus is yellowish, pliable, soft, can hardly be handled with impunity, and assumes a particular form when crystallized, whereas allotropic phosphorus is almost black, brittle, and hard, can be handled without danger, and assumes a crystalline form belonging to a different system. "We are evidently not yet at the bottom of this subject. It is a more striking illustration than we ever had before of the fact, that the same substances may exist in different states, and that all properties need conditions to call them forth. We do not know in respect of what, the bodies, the same in chemical composition, differ from each other, whether in atomic disposition or difference produced by beat or other latent energy. But that the substances have not been transmuted, is evident from the circumstance, that the body changed from one state to a second can be brought back from the second to the first, when it exhibits the very same properties as it did before it was changed.

For metaphysical purposes, the "distinction of most moment is between our original and our acquired perceptions. We agree with Sir W. Hamilton in thinking that our original perceptions are probably of our bodily frame, or of our organism and of bodies in contact with it; all beyond this seems to be acquired. In all such perceptions there must be knowledge; it is not a mere apprehension, idea, notion, or impression—none of these words express the mental act, but it is knowledge; not abstract or general knowledge, but knowledge of individual objects in their concrete state. In the very perception of our organism we must know our bodies as extended, and we may add, as exercising active power. Our acquired knowledge proceeds upon this original knowledge, and becomes the knowledge of linear distance and of various kinds of active property. Now it appears to us, that the natural realist may lay down the principle that all our original principles are true, that is, that the thing corresponds to our apprehension, or rather knowledge of »it. If he cannot prove this, he may at least defy disproof, and affirm that our intuition guarantees the reality. In adding acquired to our original perceptions, we lay down rules derived from experience, and come habitually to proceed upon them. These rules are of great use, and lead to no error in cases similar to those from which they were derived, but may land us in mistakes when extended to other cases. Thus wo lay down the rule that when we feel ourselves to be at rest,

and an image of an object moves over the retina of tho eye, this object is in motion. This rule is correct enough while we arc on land, but fails us %vhen we are in a ship moving away from the shore, for it leads us to think that tho nhore is moving. If these views be correct, it is wrong to say that the senseH deceive us, for our original perceptions do not deceive TIB ; when we are misled it IB by an improper application of rules formed by ourselves; and it; is interesting to notice, that as it is experience which has led us to farm tho rules, so experience can determine the legitimate use and limits of them.

It is a very important circumstance that the later diKcovcries of physical science go to show that our senses, that IB, our original perceptions, are trustworthy. Our senses seem to say that there is a reality (they do not say what) in heat, and the